

## Changes since 1900 in the distribution of butterflies in Yorkshire and elsewhere in the north of England.

By S. M. JACKSON \*

Porritt's list of Yorkshire Lepidoptera (1903) includes 48 species of butterfly, but the records of two of these — *Papilio machaon* Linn. dating back to 1803 and *Leptidea sinapis* (Linn.) from the nineteenth century — seem to refer to strays. Of the 46 species which remain if these are omitted, only 35 or 36 are known to be present today, and not all these are resident.

In the postwar years from 1945 to 1950 there was a welcome increase in species; *Polygonia c-album* (Linn.), *Argynnis aglaja* (Linn.), *Celastrina argiolus* (Linn.), *Callophrys rubi* (Linn.) and *Gonepteryx rhamni* (Linn.) all became more plentiful or returned after a long absence. However, by 1950 *P. c-album* and *C. argiolus* had already disappeared again from most localities and by the end of the 1950s and in the early 1960s other species such as *Pararge aegeria* (Linn.), *Hipparchia semele* (Linn.), *G. rhamni*, *A. aglaja* and *Boloria selene* (D. & S.) had shown a marked decline over most of Yorkshire. The 1970s saw a remarkable recovery by many Lepidoptera, especially the moths; some appeared in Yorkshire for the first time and others returned after a long interval. I may deal with the moths in a future article.

Some species show alternate advance and recession. *G. rhamni*, for example, was frequent up to 1956, then became scarce, was common again in 1976 but by 1979 was once more rare and confined to southern Yorkshire. In general, however, the picture is one of decline. For example, at Bishop Wood, one of the best-known collecting grounds near Selby, *Boloria euphrosyne* (Linn.), *Argynnis paphia* (Linn.), *A. adippe* (D. & S.), *Quercusia quercus* (Linn.), *Pyronia tithonus* (Linn.) and *Aphantopus hyperantus* (L.) were all present in the last century but have since disappeared. There is no doubt that the almost clear felling of the wood in the 1914-1918 war exterminated most of the butterflies, yet some of the local moths such as *Cerastis leucographa* (D. & S.), *Orthosia populeti* (Fabr.), *Rheumaptera hastata* (Linn.) and *Apocheima hispidaria* (D. & S.) still survive.

Of the "brown" butterflies, *Lasiommata megera* (Linn.) continues to be common and has extended its range in western Yorkshire. *P. aegeria* spread in the 1950s but has now disappeared from the woods west of Selby and those near Womersley. It has not been seen at its best-known locality, Brocodale Woods, Wentbridge, since 1970. It now seems to be confined to part of the magnesium limestone belt east of Leeds where I have recently seen it in only two places, one between Fairburn and Ledsham where it is still common, and the other a few miles further north where it

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is scarce. This decline in Yorkshire is strange as in most parts of England it holds its own or is increasing its range. *H. semele* likewise became more common in the 1950s and a colony flourished in a sandy area near Selby from 1955 to 1958. In recent years it has been recorded only in two localities on the chalk in eastern Yorkshire, Burdale and Kipling Cotes, but I have not seen it even there in the last few years.

However, on the brighter side two species, *P. tithonus* and *Aphantopus hyperantus* (Linn.), have shown a remarkable extension. *P. tithonus* was for many years confined to three areas in Yorkshire: in Holderness from Hull to the coast at Spurn Head; around Market Weighton, especially along the canal; and in the Throne-Hatfield district of southern Yorkshire. Expansion seems to have started in about 1953 when C. R. Haxby recorded a specimen on Skipwith Common. By 1979 it had colonised a number of localities from Torne Bridge, Barnby Dun and Askern north-east of Doncaster, through the Selby district to its old stronghold at Market Weighton. *A. hyperantus* is showing a similar but less spectacular extension. It has long been common in eastern Yorkshire, on the chalk wolds and on Strensall Common, but in nearly fifty years of collecting I had never known it within twenty miles of Selby until 1976, when I saw it at Rawcliffe, about ten miles south of the town. Since then it has continued to spread and in 1979 swarmed, far outnumbering *M. jurtina*, along a dyke only three and a half miles south of Selby. It is to be hoped that the recent digging out of these dykes as a result of a new pit does not adversely affect *P. tithonus* and *A. hyperantus*, both of which have a liking for the sides of dykes in Yorkshire. *A. hyperantus* was also noted in Leyburn in north-west Yorkshire in 1979.

I am afraid the position of the fritillaries is not good. There were sporadic Yorkshire records for *A. paphia* during the 1930s and 1940s, and one was taken in 1953 by G. Hyde at Crowle, just over the border in Lincolnshire. There were likewise occasional records of *A. adippe*, a species which is still frequent in Cumbria. *Euphydryas aurinia* (Rott.) has probably been extinct in the country since 1900. It used to occur at Askham Bag and was recorded from Selby prior to 1883; possibly this was on Selby Common, where there is still a marshy field covered with devil's-bit scabious, the only remaining haunt in the district of *Adscita staites* (Linn.). *E. aurinia* continued to occur into the 1940s at Skellingthorpe, near Market Rasen in Lincolnshire. Only three fritillaries still survive in Yorkshire, *B. selene*, *B. euphrosyne* and *A. agaja*; these are now very local and are virtually confined to the Vale of Pickering. Until the 1950s, *A. aglaja* occurred widely in western and southern Yorkshire and *B. selene* was found on Skipwith Common up to the 1960s, but is still common at Lawkland Moss near Settle. In Lincolnshire the position is much worse; whereas six species of fritillary

occurred up to 1945, *A. aglaja*, I am told, is now the sole survivor.

The position of *Hamearis lucina* (Linn.) is probably better in Yorkshire than in most counties, as there are several healthy colonies on the limestone around Pickering and Hemsley and it is more common there than in Cumbria.

Much the same applies to *Aricia agestis* (D. & S.), but that is more widespread, occurring also on the chalk wolds and near Grassington in the north-west. Reference has already been made to the status of *C. argiolus* in south Yorkshire. There are also intermittent records from the region bordering on Cumbria, a county in which it is still frequent. Still in Cumbria, a new locality has lately been found for *Cupido minimus* (Fuess.), but there is no recent record for Yorkshire, in spite of some searching.

*Callophrys rubi* (Linn.) used to occur on Skipwith Common and in other low-lying areas up to the 1950s, but now seems to be confined to hilly regions and especially the high moors of north-east Yorkshire, where it is mainly associated with bilberry. *Q. quercus* is taken in the neighbouring counties of Lincolnshire, Nottinghamshire and, especially, Cumbria, where it is said to be spreading. In Yorkshire, however, it continues to be elusive and is probably overlooked. It was first recorded on Strensall Common by the late Eric Richards in 1959 and was still there in 1977, when I beat larvae from the oaks. A most encouraging story is the notable extension of range of *Strymonidia w-album* (Knoch) in Yorkshire. This is particularly important at a time when many colonies in the south have been wiped out by Dutch elm-disease, which happily has not yet got such a hold in the north. Although less common in 1979, *S. w-album* was recorded widely over Yorkshire in 1977 and 1978 from as far north as Whitby, Kirbymoorside and Wass (near Thirsk); from Malton east to Hornsea Mere; at Mowbray Park near York, Sherburn in Elmet and Hetchell Wood near Thorney; and south to Wentbridge and onwards to Anston and Roche Abbey near Rotherham. It was also found near Preston in the Ribble Valley, this being, I believe, the first record for Lancashire.

*Erynnis tages* (Linn.) is fairly widespread, occurring especially on the limestone in north-east Yorkshire. It has become scarce near Selby, though I saw it in 1979 at Sherburn Willows Nature Reserve eight miles away, and near Micklefield on the magnesium limestone belt. *Pyrgus malvae* (Linn.) continues to be scarce and local in southern and eastern Yorkshire and there is no really recent record. However, *Thymelicus sylvestris* (Poda) occurs frequently in this part of Yorkshire and is extending its range westwards, having recently been observed near Wakefield and Huddersfield. I believe this species to be absent from Cumbria.

I have not included a number of species which have not noticeably altered their status, such as *Inachis io* (Linn.),

which may have increased in some places, *Melanargia galathea* (Linn.), which is still locally common, *Anthocharis cardamines* (Linn.), *Lycaena phlaeas* (Linn.), *Polyommatus icarus* (Rott.) and *Ochlodes venata* (Brem. & Grey).

One thing is certain: the north-eastern portion of Yorkshire is by far the most productive area for butterflies and the north-western the poorest, apparently because it has less sunshine.

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SOME UNUSUAL SPRING MOTHS AT NINFIELD, SUSSEX. — On my first spring of continually running a trap in the Sussex countryside, several interesting moths, which I think merit a note, have turned up. The first unusuality came to light on the 17th March this year, this being a single *Lithophane ornitopus* Hufn. (Grey Shoulder Knot). Nearly a month later, on the 10th April, another example of this moth was taken. A few days previous to this, on the 13th April, a single female *Orthosia miniosa* D. & S. (Blossom Underwing) appeared, this was kept for ova though unfortunately expired without laying any. I am informed by Mr. C. Pratt that these two species were relatively common in E. Sussex until the 1950's when both seemed to suffer a decline and are now quite rare in this vice-county although they are still comparatively common in parts of W. Sussex

Another scarce moth in Sussex appeared on the 14th April, this being a fine female *Lithophane socia* Hufn. (Pale Pinion). This moth also appears to be a little more common in parts of W. Sussex. (S. Church, W. E. G. Newsletter 1979 Vol. 4 No. 3).

Also noteworthy is the fact that it seems to have been a good year for *Orthosia populeti* Fab. (Lead Coloured Drab) in E. Sussex. The moth appeared in several localities and, at my trap alone, was not uncommon with some 14 specimens seen with a peak of six on the 16th April.

I am grateful to Mr. C. Pratt for extra information concerning these species. — M. PARSONS, The Forge, Russells Green, Ninfield, nr. Battle, E. Sussex.

COLEOPHORA CURRUCIPENNELLA (ZELLER) IN KENT. — At the kind invitation of Phil Jewess, a night visit to Hoads Wood, Bethersden on 13th July 1979 produced amongst other interesting species, five Coleophorid moths at light, all of which Dr. J. D. Bradley kindly confirmed as *C. currucipennella*. — N. F. Heal, "Fosters", Detling Hill, Maidstone, Kent. [This appears to be one of the rarest of the Coleophoridae, with very few records of the species in recent years and no other confirmed occurrence for Kent to my knowledge this century, though a specimen (minus abdomen) from Elham Park Wood, Barham, Kent in the collection of the late S. Wakely may be referable to *currucipennella*. It has been suggested that the larva of *currucipennella* feeds high up and so escapes detection. — J. M. C.-H.]